

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000-1
DEPTH: 100.5-102.0'
S-31

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0001
DEPTH: 102.0-103.5'
S-32

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0001
DEPTH: 103.5'-105.0'
S-33

**SOILS TEST CORE BORING
NUMBER
“CP06-L30PP-CB-0002”**

Miami-Dade County, Florida

Boring Designation CP06-L30PP-CB-0002

DRILLING LOG		DIVISION South Atlantic		INSTALLATION Jacksonville District		SHEET 1 OF 7 SHEETS			
1. PROJECT L-30 Seepage Management Pilot Project Top Of Levee L-30 (Center of Roadway)				9. SIZE AND TYPE OF BIT See Remarks					
2. BORING DESIGNATION CP06-L30PP-CB-0002		LOCATION COORDINATES X = 823,753 Y = 522,044		10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD83 VERTICAL NAVD88			
3. DRILLING AGENCY Challenge Engineering & Testing, Inc.		CONTRACTOR FILE NO. 2006D30		11. MANUFACTURER'S DESIGNATION OF DRILL CME 55 Truckrig		<input type="checkbox"/> AUTO HAMMER <input checked="" type="checkbox"/> MANUAL HAMMER			
4. NAME OF DRILLER Adam Benson		12. TOTAL SAMPLES 33		DISTURBED 33		UNDISTURBED (UD) 0			
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG. FROM VERTICAL		BEARING		13. TOTAL NUMBER CORE BOXES 4			
6. THICKNESS OF OVERBURDEN N/A		7. DEPTH DRILLED INTO ROCK N/A		8. TOTAL DEPTH OF BORING 109.0 Ft.		14. ELEVATION GROUND WATER 5.0 Ft.			
15. DATE BORING 10-06-06		16. ELEVATION TOP OF BORING 17.5 Ft.		17. TOTAL RECOVERY FOR BORING 65 %		18. SIGNATURE AND TITLE OF INSPECTOR Bob Momberger, Geologist			
19. STARTED 10-06-06		20. COMPLETED 10-17-06							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/0.5 FT.	N-VALUE
17.5	0.0		L-30 Levee Fill Material				17.5		
							Advanced Boring w/ tricone roller bit		

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(Continued)

Boring Designation CP06-L30PP-CB-0002

DRILLING LOG (Cont. Sheet)				INSTALLATION		SHEET 2			
				Jacksonville District		OF 7 SHEETS			
PROJECT				COORDINATE SYSTEM/DATUM		HORIZONTAL	VERTICAL		
L-30 Seepage Management Pilot Project				State Plane, FLE (U.S. Ft.)		NAD83	NAVD88		
LOCATION COORDINATES				ELEVATION TOP OF BORING					
X = 823,753 Y = 522,044				17.5 Ft.					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE
0.2	17.3						Advanced Boring w/ tricone roller bit		
-2.5	20.0		LIMESTONE, oolitic, sparsely fossiliferous, soft, moderately weathered, fine-grained, thin bedding, vuggy, Ft. Thompson Formation, 2.5Y 8/2 pale yellow	81	1	RQD 20	4 x 5-1/2" Diamond Impregnated Bit DT = 1 mins HP = 250 psi DFR = 50 %		
-5.5	23.0		LIMESTONE, hard, moderately weathered, fine-grained, thick bedding, pitted, 5Y 8/1 white At El. -4.0 Ft., 5Y 7/3 pale yellow	100	2	RQD 85	4 x 5-1/2" Diamond Impregnated Bit DT = 4 mins HP = 250 psi DFR = 25 %		
-12.5	30.0		LIMESTONE, fossiliferous, moderately hard, slightly weathered, aphanitic, thick bedding, vuggy, 5Y 8/2 pale yellow At El. -9.5 Ft., thin bedding, 5Y 8/1 white	60	3	RQD 10	4 x 5-1/2" Diamond Impregnated Bit DT = 3 mins HP = 250 psi DFR = 0 %		
-14.5	32.0		SAND, silty, soft, mostly subangular fine-grained sand-sized carbonate, strong reaction with HCl, wet, 2.5Y 8/2 pale yellow (SM)						
			LIMESTONE, fossiliferous, moderately hard, moderately weathered, fine-grained, thin bedding, vuggy, 5Y 8/1 white At El. -17.0 Ft., 5Y 6/4 pale olive	60	2	RQD 0	4 x 5-1/2" Diamond Impregnated Bit DT = 4 mins HP = 250 psi DFR = 0 %		

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Boring Designation CP06-L30PP-CB-0002

DRILLING LOG (Cont. Sheet)			INSTALLATION Jacksonville District			SHEET 3 OF 7 SHEETS			
PROJECT L-30 Seepage Management Pilot Project			COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD83	VERTICAL NAVD88			
LOCATION COORDINATES X = 823,753 Y = 522,044			ELEVATION TOP OF BORING 17.5 Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE
		Moderately Weathered		60	5	RQD 25	4 x 5-1/2" Diamond Impregnated Bit DT = 3 mins HP = 250 psi DFR = 0 %		
			From El. -20.5 to -31.5 Ft., unweathered, aphanitic, thin bedding, pitted, 5Y 8/1 white						
							-22.5		
				60	2	BOX RQD 0	4 x 5-1/2" Diamond Impregnated Bit DT = 5 mins HP = 250 psi DFR = 0 %		
							-27.5		
		Unweathered		66	7	RQD 0	4 x 5-1/2" Diamond Impregnated Bit DT = 5 mins HP = 250 psi DFR = 0 %		
			From El. -31.5 to -37.5 Ft., soft, unweathered, aphanitic, thin bedding, pitted, clay filled pits						
							-32.5		
		Unweathered		60	3	BOX RQD 25	4 x 5-1/2" Diamond Impregnated Bit DT = 6 mins HP = 250 psi DFR = 0 %		
							-37.5		

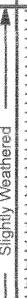


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JUN 02

Boring Designation CP06-L30PP-CB-0002

DRILLING LOG (Cont. Sheet)				INSTALLATION		SHEET 4			
				Jacksonville District		OF 7 SHEETS			
PROJECT				COORDINATE SYSTEM/DATUM		HORIZONTAL	VERTICAL		
L-30 Seepage Management Pilot Project				State Plane, FLE (U.S. Ft.)		NAD83	NAVD88		
LOCATION COORDINATES				ELEVATION TOP OF BORING					
X = 823,753 Y = 522,044				17.5 Ft.					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE
		Mod. Weathered	From El. -37.5 to -39.5 Ft., moderately hard, moderately weathered, aphanitic, thin bedding, vuggy, 5Y 7/2 light gray						55
		Unweathered	From El. -39.5 to -43.5 Ft., soft, unweathered, aphanitic, thin bedding, pitted, clay filled pits, 5Y 8/1 white	25	9	RQD 0	4 x 5-1/2" Diamond Impregnated Bit DT = 4 mins HP = 250 psi DFR = 0 %		
							-42.5		60
		Mod. Weathered	From El. -43.5 to -46.0 Ft., moderately hard, moderately weathered, aphanitic, thin bedding, vuggy, sand filled vugs, 5Y 7/3 pale yellow	20	3	RQD 0	4 x 5-1/2" Diamond Impregnated Bit DT = 6 mins HP = 250 psi DFR = 0 %		
			From El. -46.0 to -51.5 Ft., moderately weathered, aphanitic, thin bedding, pitted, clay filled pits, 10YR 7/2 light gray				-47.5		65
		Mod. Weathered		80	11	RQD 8	4 x 5-1/2" Diamond Impregnated Bit DT = 6 mins HP = 250 psi DFR = 0 %		
		Unweathered	From El. -51.5 to -55.5 Ft., unweathered, aphanitic, medium bedding, vuggy, sand filled vugs, 10YR 8/2 very pale brown				-52.5		70
		Mod. Weathered	From El. -55.5 to -57.5 Ft., moderately weathered, fine-grained, thick bedding, pitted, sand filled pits, 2.5Y 6/1 gray	90	4	RQD 60	4 x 5-1/2" Diamond Impregnated Bit DT = 3 mins HP = 250 psi DFR = 0 %		
-57.5	75.0						-57.5		75

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Boring Designation CP06-L30PP-CB-0002

DRILLING LOG (Cont. Sheet)				INSTALLATION			SHEET 5			
				Jacksonville District			OF 7 SHEETS			
PROJECT				COORDINATE SYSTEM/DATUM		HORIZONTAL	VERTICAL			
L-30 Seepage Management Pilot Project				State Plane, FLE (U.S. Ft.)		NAD83	NAVD88			
LOCATION COORDINATES				ELEVATION TOP OF BORING						
X = 823,753 Y = 522,044				17.5 Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/0.5 FT.	N-VALUE	
-61.5	79.0		LIMESTONE, soft, slightly weathered, aphanitic, 5Y 7/3 pale yellow	0	BOX	RQD	4 x 5-1/2" Diamond Impregnated Bit DT = 2 mins HP = 250 psi DFR = 0 %			
-62.5	80.0		LIMESTONE, fossiliferous, soft, slightly weathered, aphanitic, pitted, sand filled pits, 5Y 7/3 pale yellow	20	14			SPT Sampler	WOR	
			SHELL, mostly angular coarse-grained sand-sized shell up to 1/2", little clay, strong reaction with HCl, wet, Pinecrest Sand Formation, 2.5Y 7/1 light gray	40	15		SPT Sampler	7	23	
			At El. -64.5 Ft., some coarse gravel-sized limestone up to 1"	97	16		SPT Sampler	7	28	
					73	17		SPT Sampler	8	33
-68.5	86.0				100	18		SPT Sampler	16	
				SAND, clayey, nonplastic, soft, mostly fine-grained sand-sized carbonate, little clay, strong reaction with HCl, wet, 2.5Y 7/1 light gray (SC)	50	19		SPT Sampler	8	29
-70.0	87.5					77	20		SPT Sampler	12
					90	21		SPT Sampler	14	90
					90	22		SPT Sampler	8	15
-74.5	92.0			CLAY, lean, medium plasticity, soft, mostly clay, some shell up to 1/4", little fine-grained sand-sized carbonate, strong reaction with HCl, wet, 2.5Y 5/1 gray (CL)	90	23		SPT Sampler	5	14
			At El. -76.5 Ft., some fine-grained sand-sized quartz, little coarse-grained sand-sized shell, strong reaction with HCl,	90	24		SPT Sampler	6		
								5		

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JUN 02

Boring Designation CP06-L30PP-CB-0002

DRILLING LOG (Cont. Sheet)				INSTALLATION Jacksonville District		SHEET 6 OF 7 SHEETS				
PROJECT L-30 Seepage Management Pilot Project				COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD83	VERTICAL NAVD88			
LOCATION COORDINATES X = 823,753 Y = 522,044				ELEVATION TOP OF BORING 17.5 Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE	
-78.5	96.0		wet, 10Y 6/1 greenish gray	90	24		-78.0 SPT Sampler	5	10	
									15	
									15	23
			SAND, silty, very soft, mostly fine-grained sand-sized quartz, little silt, little coarse-grained sand-sized shell up to 1/4", strong reaction with HCl, wet, 10Y 7/1 light greenish gray (SM)	67	25		-79.5	8		
									7	
									14	28
-81.0	98.5			47	26		SPT Sampler	14		
									14	
			SHELL, mostly angular fine to coarse gravel-sized shell up to 3/4", little fine-grained sand-sized quartz, little sand to gravel-sized limestone up to 1/2", few silt, strong reaction with HCl, wet, 10Y 7/1 light greenish gray	90	27		-81.0 SPT Sampler	7		
									14	35
									21	
			At El. -82.5 Ft., few fine-grained sand-sized quartz	90	28		SPT Sampler	22	100	
									23	
									21	44
							-84.0	12		
									11	
			At El. -85.0 Ft., some fine to medium-grained sand-sized quartz, trace sand to gravel-sized shell up to 3/4"	90	29		SPT Sampler	9	20	
							-85.5	5		
									10	
									10	20
-87.5	105.0						-87.0	17		
									23	105
									42	
			SAND, silty, some fine-grained sand-sized quartz, little fine-grained sand-sized carbonate, little sand to gravel-sized shell up to 1/2", strong reaction with HCl, wet, 10Y 6/1 greenish gray (SM)	90	31		SPT Sampler	27		
									37	74
									37	
			At El. -88.5 Ft., few coarse-grained sand-sized limestone up to 1/4"	90	32		-90.0	14		
									34	71
									37	
-91.4	108.8			97	33		SPT Sampler			
			LIMESTONE, fossiliferous, moderately hard, coarse-grained, pitted, clay filled pits, 10Y 6/1 greenish gray				-91.5			
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System. 2. Set 17.5 Ft. of 8" Schedule 40 PVC Pipe Through Center of L-30 Levee To Top of Rock. 3. Boring Drilled/Sampled In Three Phases: A. Set Surface Casing. B. 4" Wireline Rock Coring To Base Of Rock. C. Splitspoon Sampling 30 Ft. Below Base of Rock.				140# hammer w/30" drop used with 2.0' split spoon (1-3/8" I.D. x 2" O.D.). Abbreviations: WOR = Weight of Rods. DT = Drill Time. HP = Hydraulic Pressure. DFR = Drill Fluid Return.			

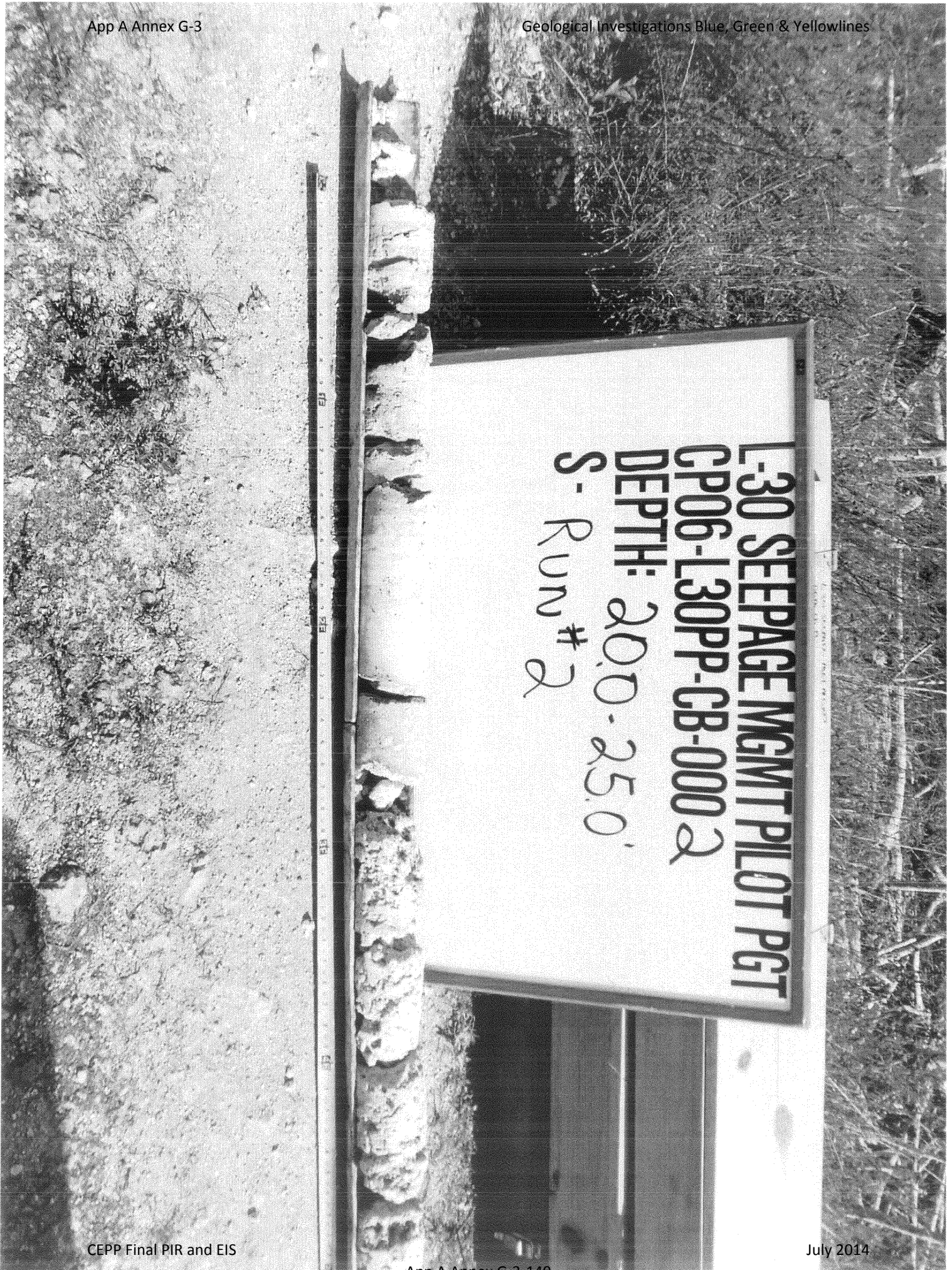
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Boring Designation CP06-L30PP-CB-0002

DRILLING LOG (Cont. Sheet)			INSTALLATION			SHEET 7 OF 7 SHEETS			
PROJECT			COORDINATE SYSTEM/DATUM		HORIZONTAL	VERTICAL			
L-30 Seepage Management Pilot Project			State Plane, FLE (U.S. Ft.)		NAD83	NAVD88			
LOCATION COORDINATES			ELEVATION TOP OF BORING						
X = 823,753 Y = 522,044			17.5 Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE
			4. Borehole Reamed To 7.5" To Base of Rock. USGS Performed Borehole Logging. 5. 2" Monitoring Well Set @ X = 823754 Y= 522036 Screen From -40.7 to -42.7 Ft. 6. Cored to 80 Ft. To Confirm Out of Rock 7. Boring sealed with available sediment.						

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L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 17.3-20.0
S- Run #1



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 25.0-30.0'
S- Run #3

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 30.0-35.0'
S- Run # 4

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 35.0 - 40.0
S- Run #5

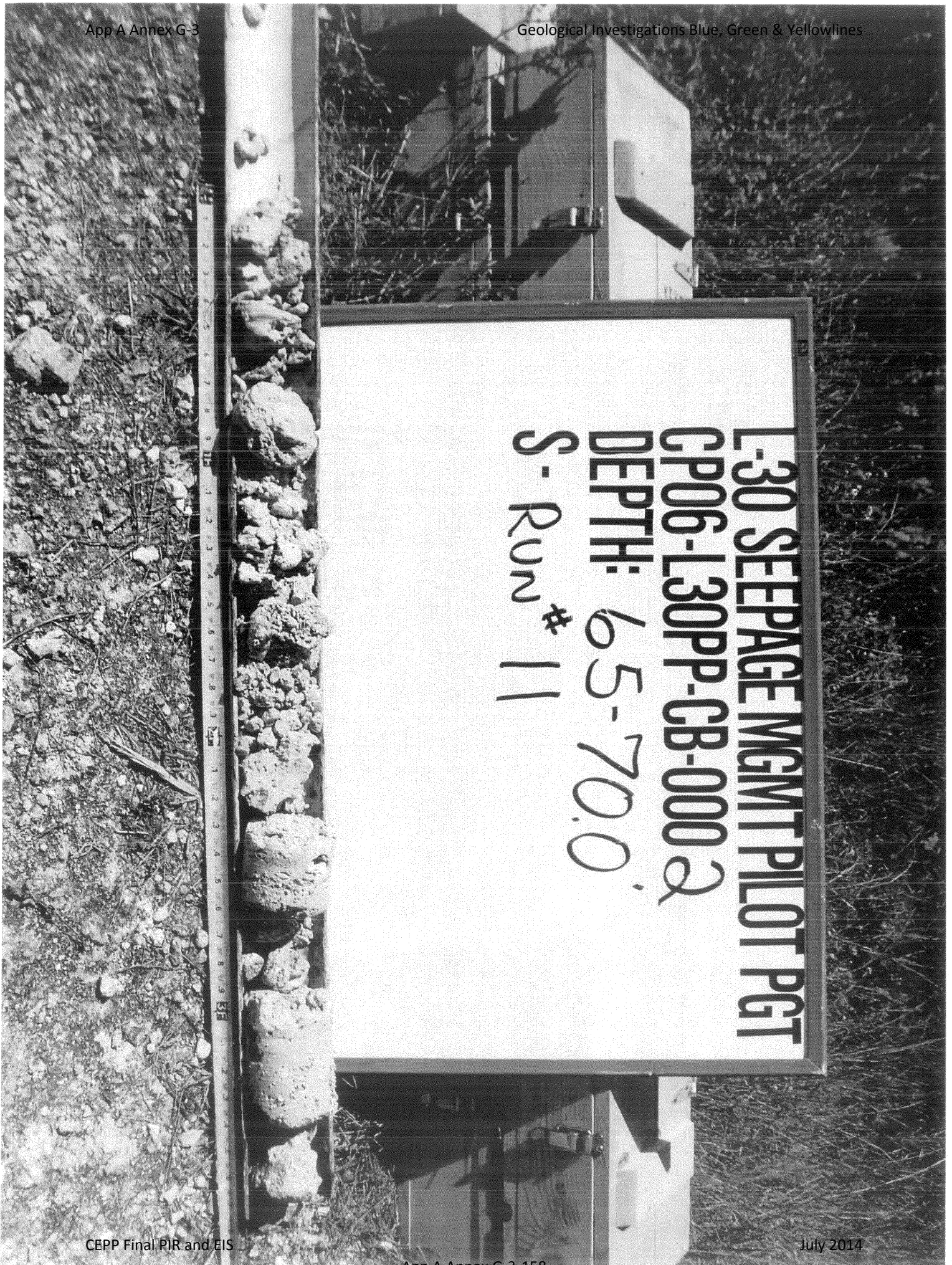
L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 40.0-45.0'
S- Run#6

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 45.0-50.0'
S-RUN #7

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 50.0-55.0'
S. Run # 8

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 55.0-60.0'
S-Run #9

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 60.0-65.0
S-Run #10





L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 79.0-80.5'
S-14

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 80.5-82.0'
S-15

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 82.0-83.5'
S-16

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 03.5-85.0'
S-17

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-0002
DEPTH: 85.0-86.5
S-18



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 86.5-88.0'
S-19

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 88.0-89.5
S-20

60
BARS
35 GAL/HR

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 89.5-91.0'
S-21

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 91.0-92.5'
S-22



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 92.5-94.0'
S-23

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 94.0-95.5'
S-24



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 95.5-97.0
S- 25

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 97.0-98.5'
S- 26

L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 98.5-100.0'
S- 27



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 101.5-103.0'
S- 28



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 101.5-103.0'
S- 29



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 103.0-104.5
S- 30



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 104.5-106.0'
S-31



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 106.0-107.5
S-32



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 2
DEPTH: 109.5-109.0'
S-33



**SOILS TEST CORE BORING
NUMBER
“CP06-L30PP-CB-0003”**

Miami-Dade County, Florida

Boring Designation CP06-L30PP-CB-0003

DRILLING LOG		DIVISION South Atlantic		INSTALLATION Jacksonville District		SHEET 1 OF 6 SHEETS			
1. PROJECT L-30 Seepage Management Pilot Project Top Of Levee L-30 (Center of Roadway)				9. SIZE AND TYPE OF BIT See Remarks					
2. BORING DESIGNATION CP06-L30PP-CB-0003		LOCATION COORDINATES X = 821,358 Y = 519,743		10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD83	VERTICAL NAVD88		
3. DRILLING AGENCY Challenge Engineering & Testing, Inc.		CONTRACTOR FILE NO. 2006D30		11. MANUFACTURER'S DESIGNATION OF DRILL CME 55 Truckrig		<input type="checkbox"/> AUTO HAMMER <input checked="" type="checkbox"/> MANUAL HAMMER			
4. NAME OF DRILLER Adam Benson				12. TOTAL SAMPLES		DISTURBED 33	UNDISTURBED (UD) 0		
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG. FROM VERTICAL		13. TOTAL NUMBER CORE BOXES		5			
		BEARING		14. ELEVATION GROUND WATER		5.0 Ft.			
6. THICKNESS OF OVERBURDEN		N/A		15. DATE BORING		STARTED 10-07-06	COMPLETED 10-18-06		
7. DEPTH DRILLED INTO ROCK		N/A		16. ELEVATION TOP OF BORING		17.2 Ft.			
8. TOTAL DEPTH OF BORING		105.0 Ft.		17. TOTAL RECOVERY FOR BORING		73 %			
				18. SIGNATURE AND TITLE OF INSPECTOR Bob Momberger, Geologist					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/0.5 FT.	N-VALUE
17.2	0.0		L-30 Levee Fill Material				17.2		
							Advanced Boring w/ tricone roller bit		

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(Continued)

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July 2014

Boring Designation CP06-L30PP-CB-0003

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DRILLING LOG (Cont. Sheet)

SHEET 4

OF 6 SHEETS

PROJECT

L-30 Seepage Management Pilot Project

COORDINATE SYSTEM/DATUM

State Plane, FLE (U.S. Ft.)

HORIZONTAL

NAD83

VERTICAL

NAVD88

LOCATION COORDINATES

ELEVATION TOP OF BORING

$$X = 821.358 \quad Y = 519.743$$

17.2 Ft.

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE
-44.8	62.0	Slightly Weathered	At El. -37.8 Ft., slightly weathered, pitted, 2.5Y 8/1 white	70	9 BOX 3	RQD 20	4 x 5-1/2" Diamond Impregnated Bit DT = 2 mins HP = 250 psi DFR = 0 % -42.8		
-49.8	67.0	Unweathered	LIMESTONE, hard, unweathered, pitted, 2.5Y 6/1 gray	80	10	RQD 20	4 x 5-1/2" Diamond Impregnated Bit DT = 7 mins HP = 250 psi DFR = 0 % -47.8		
-54.8	72.0	Moderately Weathered	At El. -47.8 Ft., moderately weathered, thin bedding, vuggy, clay filled vugs LIMESTONE, soft, clay filled vugs	40	11 BOX 4	RQD 0	4 x 5-1/2" Diamond Impregnated Bit DT = 2 mins HP = 250 psi DFR = 0 % -52.8		
-57.8			SHELL, mostly angular sand to gravel-sized shell up to 1/2", few fine-grained sand-sized carbonate, trace limestone up to 1/8", strong reaction with HCl, wet, 5Y 7/1 light gray At El. -57.1 Ft., little fine-grained sand-sized carbonate, Pinecrest Sand Formation	20	12	RQD 0	4 x 5-1/2" Diamond Impregnated Bit DT = 1 mins HP = 250 psi DFR = 0 % -67.8		

CEPP Final PIR and EIS

July 2014

Boring Designation CP06-L30PP-CB-0003

DRILLING LOG (Cont. Sheet)			INSTALLATION Jacksonville District			SHEET 5 OF 6 SHEETS			
PROJECT L-30 Seepage Management Pilot Project			COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD83	VERTICAL NAVD88			
LOCATION COORDINATES X = 821,358 Y = 519,743			ELEVATION TOP OF BORING 17.2 Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE
				0	13	RQD	4 x 5-1/2" Diamond Impregnated Bit		
				67	14		SPT Sampler	2	4
							-59.3	2	
				73	15		SPT Sampler	3	6
							-60.8	2	
				73	16		SPT Sampler	3	5
							-62.3	2	
				47	17		SPT Sampler	7	80
							-63.8	6	12
				97	18		SPT Sampler	5	
							-65.3	4	11
-65.3	82.5						-65.6	7	
			SAND, silty, mostly fine-grained sand-sized carbonate, little angular sand to gravel-sized shell up to 1/2", few sandstone, strong reaction with HCl, wet, moderate cementation, N 6/ gray (SM)	100	19		SPT Sampler	50/0.3'	
-66.8	84.0						Advanced Boring		
							-66.8		
			SHELL, low plasticity, mostly angular sand to gravel-sized shell up to 1/2", little clay, few silt, strong reaction with HCl, wet, 10Y 6/1 greenish gray	90	20		SPT Sampler	14	31
							-68.3	14	85
				53	21		SPT Sampler	9	
							-69.8	19	40
				80	22		SPT Sampler	21	
							-71.3	19	48
							-72.8	22	
-72.8	90.0			90	23		SPT Sampler	21	38
							-72.8	17	
			SAND, silty, mostly medium-grained sand-sized quartz, some angular medium-grained sand-sized shell up to 1/4", strong reaction with HCl, wet, N 6/ gray (SM)	97	24		SPT Sampler	11	27
							-74.3	12	
				97	25		SPT Sampler	15	28
							-75.8	14	
				97	26		SPT Sampler	14	13
							-77.3	9	
				67	27		SPT Sampler	6	
								7	
								8	

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Boring Designation CP06-L30PP-CB-0003

DRILLING LOG (Cont. Sheet)				INSTALLATION Jacksonville District		SHEET 6 OF 6 SHEETS			
PROJECT L-30 Seepage Management Pilot Project				COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD83	VERTICAL NAVD88		
LOCATION COORDINATES X = 821,358 Y = 519,743				ELEVATION TOP OF BORING 17.2 Ft.					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	ROD OR UP	REMARKS	BLOWS/ 0.5 FT.	N-VALUE
			At El. -77.8 Ft., some angular sand to gravel-sized shell up to 1/2", trace silt, strong reaction with HCl, wet, N 6/ gray	67	27		SPT Sampler	5	11
			At El. -78.8 Ft., some angular sand to gravel-sized shell up to 1"	97	28		SPT Sampler	6	10
								2	
								3	
								7	48
				97	29		SPT Sampler	29	
								25	
								23	47
			At El. -81.8 Ft., little angular medium-grained sand-sized shell up to 1/4", strong reaction with HCl, wet, N 6/ gray	97	30		SPT Sampler	12	
								20	
								27	54
			At El. -83.3 Ft., some angular sand to gravel-sized shell up to 1"	93	31		SPT Sampler	10	
								26	
								28	39
			At El. -84.8 Ft., some angular sand to gravel-sized shell up to 1-1/2"	70	32		SPT Sampler	15	
								26	
								13	15
			At El. -86.3 Ft., little angular sand to gravel-sized shell up to 1/2", weak cementation, 10Y 7/1 light greenish gray	73	33		SPT Sampler	6	
								7	
								8	
-87.8	105.0								
			NOTES:				140# hammer w/30" drop used with 2.0' split spoon (1-3/8" I.D. x 2" O.D.).		
			1. Soils are field visually classified in accordance with the Unified Soils Classification System.				Abbreviations:		
			2. Set 17.5 Ft. of 8" Schedule 40 PVC Pipe Through Center of L-30 Levee To Top of Rock.				DT = Drill Time.		
			3. Boring Drilled/Sampled In Three Phases:				HP = Hydraulic Pressure.		
			A. Set Surface Casing.				DFR = Drill Fluid Return.		
			B. 4" Wireline Rock Coring To Base Of Rock.						
			C. Splitspoon Sampling 30 Ft. Below Base of Rock.						
			4. Borehole Reamed To 7.5" To Base of Rock. USGS Performed Borehole Logging.						
			5. 2" Monitoring Well Set @ X = 821356 Y= 519734						
			Screen From -41.8 to -43.8 Ft.						
			6. Cored to 80 Ft. To Confirm Out of Rock						
			7. Boring sealed with available sediment.						

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L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 3
DEPTH: 17.5-20.0'
S- Run #1

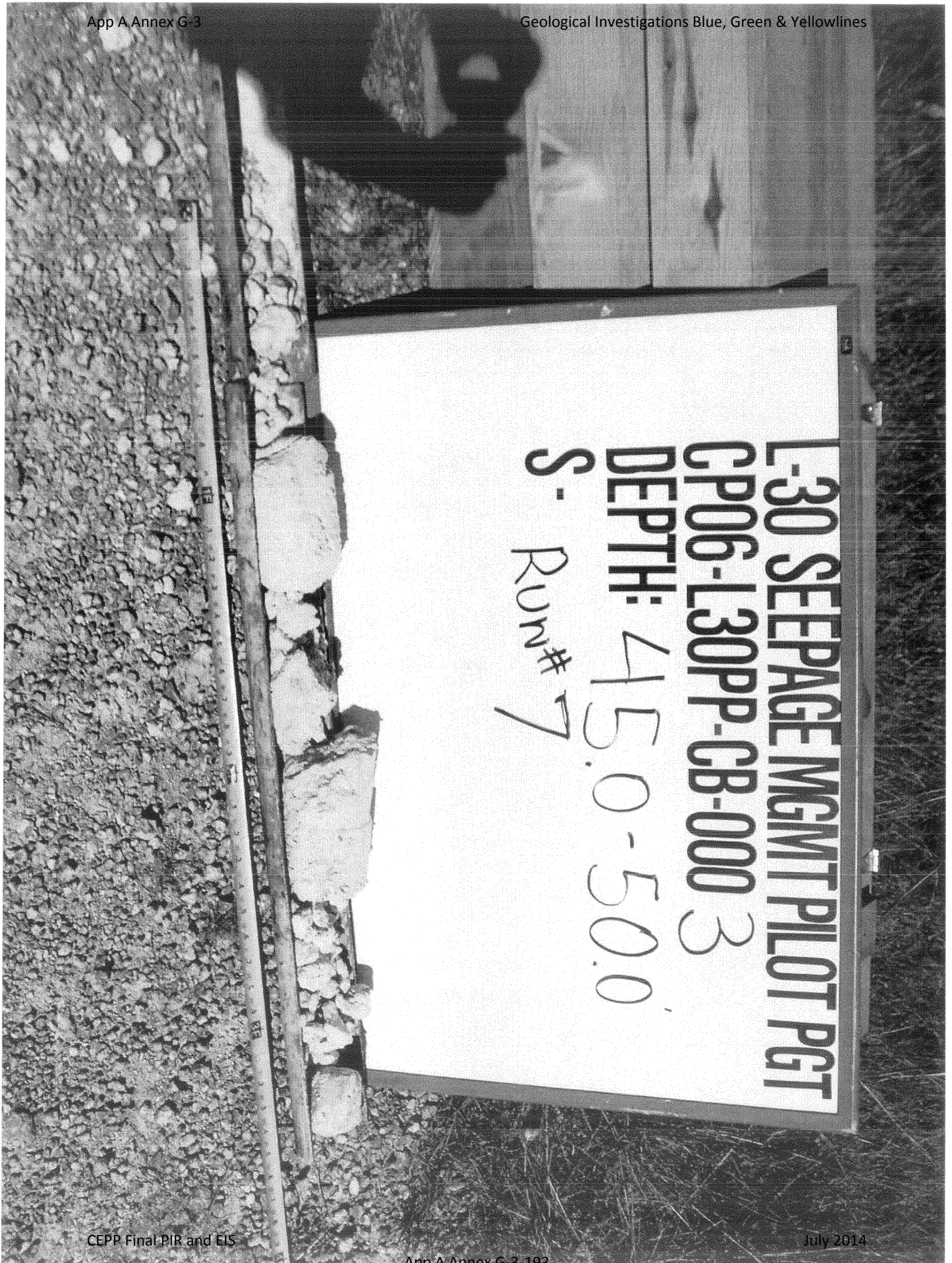
L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 3
DEPTH: 20.0-25.0'
S- Run # 2



L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 3
DEPTH: 30.0-35.0
S. Run#4







L-30 SEEPAGE MGMT PILOT PGT
CP06-L30PP-CB-000 3
DEPTH: 50.0-55.0'
S- Run #8